

# EDGE OF CEDARS STATE PARK MUSEUM HVAC UPGRADES

660 West 400 North Blanding, Utah 84511

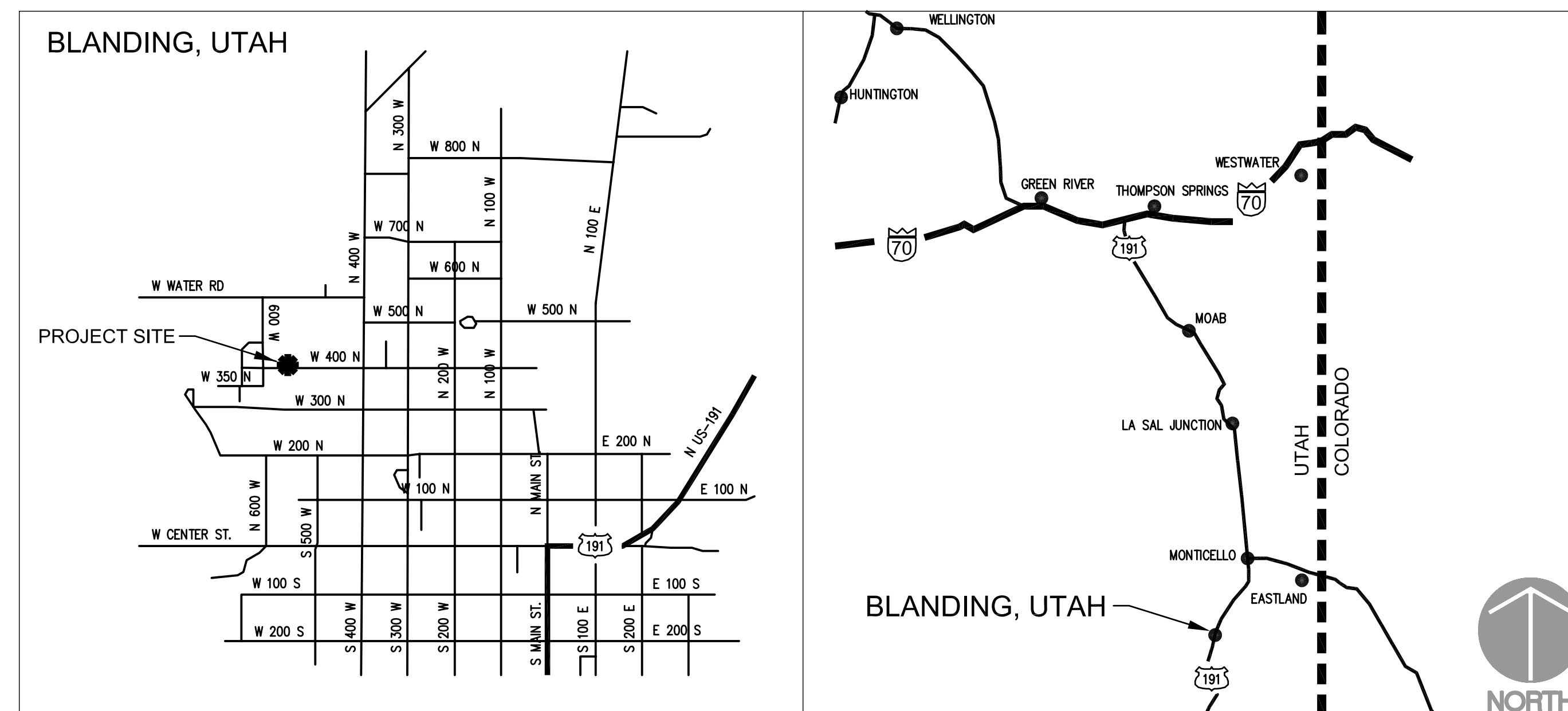


State of Utah—Department of Administrative Services

## DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building / Salt Lake City, Utah 84114 / 538-3018

DFCM Project No. 06157510  
CONSTRUCTION DRAWINGS



## Vicinity Map

## SHEET INDEX

C-001	COVER SHEET
M-101	MECHANICAL ROOF PLAN
M-102	MECHANICAL UPPER LEVEL PLAN & DETAIL

## CONSULTANTS

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Original drawings remain the property of the Engineer and as such the Engineer retains total ownership and control. The design represented by these drawings are sold to the client for a one time use, unless otherwise agreed upon in writing by the Engineer.

• Van Boerum & Frank Assoc., 2003

**Edge of Cedars State Park  
Museum HVAC Upgrade**  
600 West 400 North  
Blanding, Utah 84511

## REVISIONS

VBFA PROJECT #:	06265
CHECKED BY:	STS
DRAWN BY:	Ejuarez
CURRENT/BID DATE:	03/13/07

## SHEET CONTENTS

## COVER SHEET

**C-001**

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KEYED NOTES

- 1

REPLACE (2) EXISTING HOT GAS BYPASS VALVE WITH NEW. SEE SPECIFICATIONS.
- 2

UPGRADE AUTOMATIC TEMPERATURE CONTROLS. SEE SPECIFICATIONS.
- 3

PROVIDE AND INSTALL LOW AMBIENT KITS TO EXISTING UNITS TO ALLOW DX COOLING OPERATION DOWN TO 0° DEGREES F AMBIENT. SEE DETAIL 2/M-102.
- 4

PROVIDE A 7.5 HP 208/3 YASKAWA E7, OR EQUAL, VARIABLE FREQUENCY DRIVE (VFD) IN NEMA 3R WEATHERPROOF ENCLOSURE TO CONTROL EXISTING ROOFTOP UNIT POWER EXHAUST FANS. IF SPACE IS AVAILABLE VFD MAY BE FURNISHED WITH NEMA 1 ENCLOSURE AND INSTALLED EXISTING ROOFTOP UNIT CONTROL CABINET. CONNECT BOTH EXHAUST FAN MOTORS TO THE VFD. FACTORY AUTHORIZED PERSONAL SHALL PROVIDE FULL STARTUP AFTER INSTALLATION. THE VFD SHALL CARRY A 3 YEAR FACTORY PARTS AND LABOR WARRANTY.
- 5

REMOVE EXISTING FUSES, STARTERS, AND WIRING TO EXISTING ROOFTOP UNIT POWER EXHAUST FAN MOTORS. PROVIDE NEW 40 AMPERE FUSES WITH FUSE BLOCK OVERCURRENT PROTECTION OF NEW VFD. PROVIDE NEW WIRE FROM FUSE BLOCK TO NEW VFD AND FROM VFD TO EXISTING FAN MOTORS.



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SHEET CONTENTS

MECHANICAL  
ROOF PLAN

M-101

1 MECHANICAL ROOF PLAN  
M-101 SCALE: 1/8" = 1'-0"

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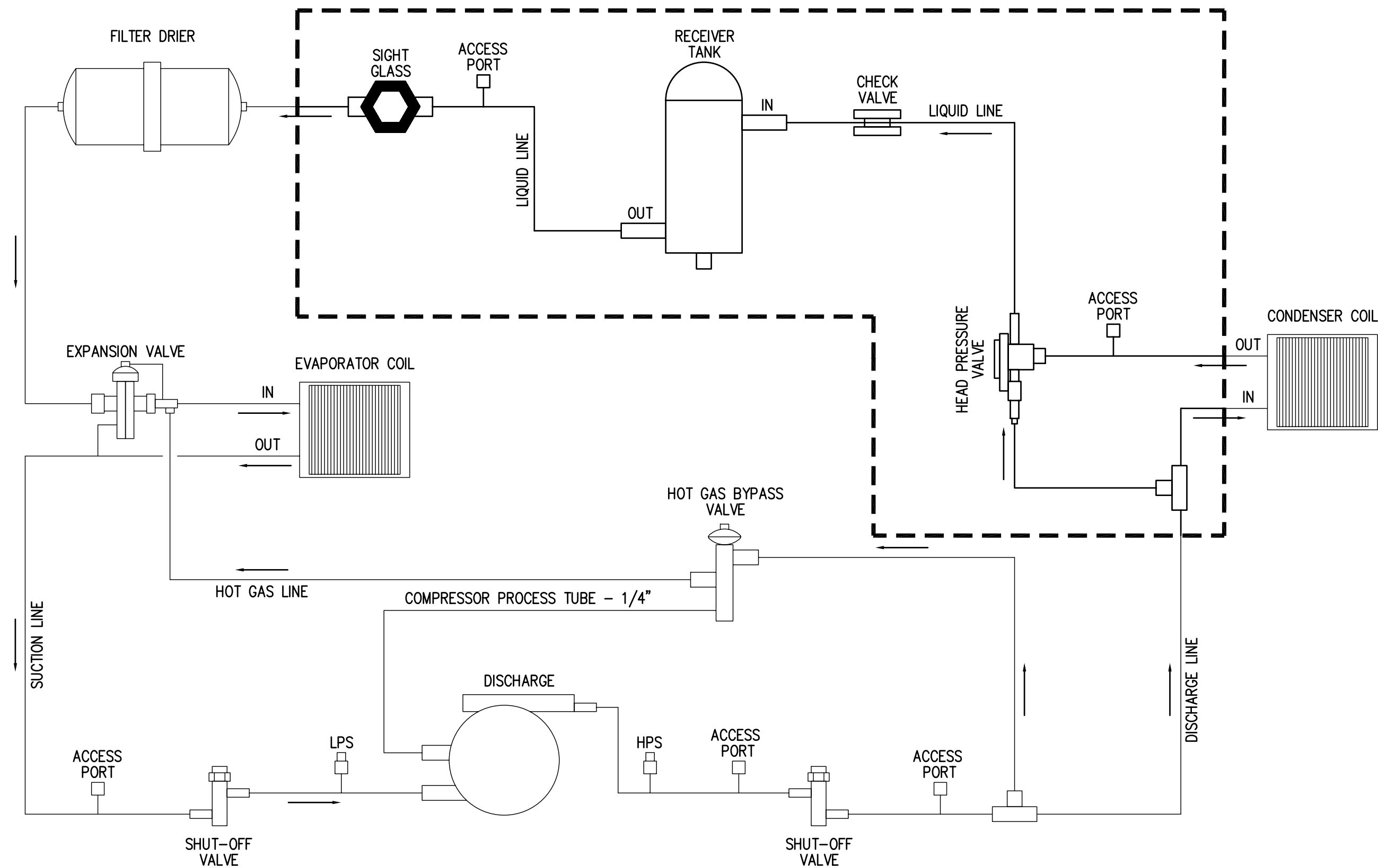
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2 LOW AMBIENT DETAIL  
M-102 SCALE: NONE

NOTES:

PROVIDE AND INSTALL THE FOLLOWING EQUIPMENT TO PROVIDE LOW-AMBIENT OPERATION. ONLY ONE CIRCUIT IS SHOWN. PROVIDE THE FOLLOWING FOR (1) REFRIGERANT CIRCUITS PER ROOFTOP UNIT.

AAON ROOFTOP MODEL: RK-30-2-00-31N:HHOJAAEKH00008

TO ADD A LOW AMBIENT KIT TO ONE (1) CIRCUIT ON THIS UNIT, THE FOLLOWING EQUIPMENT IS REQUIRED.

AAON LOW AMBIENT KIT FOR R-22

1. SIGHT GLASS
2. 3 ACCESS PORTS
3. CHECK VALVE
4. FLOOD BACK REFRIGERANT VALVE
5. TEE CONNECTION
6. CRANKCASE HEATERS
7. LOW PRESSURE SWITCH FOR STAGES WITHOUT LOW AMBIENT KIT
8. 30 SECOND TIMER SWITCHES FOR STAGES DELAY
9. ADJUSTABLE LOOKOUTS FOR ALL REFRIGERANT CIRCUITS
10. FAN CYCLING FOR CONDENSER FANS

THE REFRIGERANT CIRCUIT CHARGE SHALL BE FULLY EVACUATED AND STORED PRIOR TO INSTALLATION OF THE NEW COMPONENTS. THE LIQUID LINES LEADING TO AND FROM THE CONDENSER SHALL BE CUT IN PREPARATION FOR INSTALLATION OF ITEMS 1 THRU 5 ABOVE. THESE ITEMS SHOULD THEN BE INSTALLED PER THE ATTACHED DIAGRAM, AND THE ENTIRE SYSTEM SHALL BE RE-CHARGED AND LEAK TESTED. ANY LEAKS FOUND SHALL BE REPAIRED AND RE-TESTED PRIOR TO ENERGIZING THE UNIT. NOTE THAT THE AMOUNT OF CHARGE WILL BE INCREASED BY THE RECEIVER STORAGE CAPACITY AND ADDITIONAL PIPE CAN COMPONENT CAPACITY. ITEMS 8-10 SHALL BE INSTALLED AT THE COMPRESSORS FOR PROPER OPERATION UNDER LOW OUTDOOR AIR CONDITIONS.

IF UNIT USES LAC 5 VALVE THEN A CHECK VALVE MUST BE ADDED.

KEYED NOTES

- 1 PROVIDE AND INSTALL NEW SENSOR. SEE SPECIFICATIONS FOR SEQUENCE OF OPERATION.



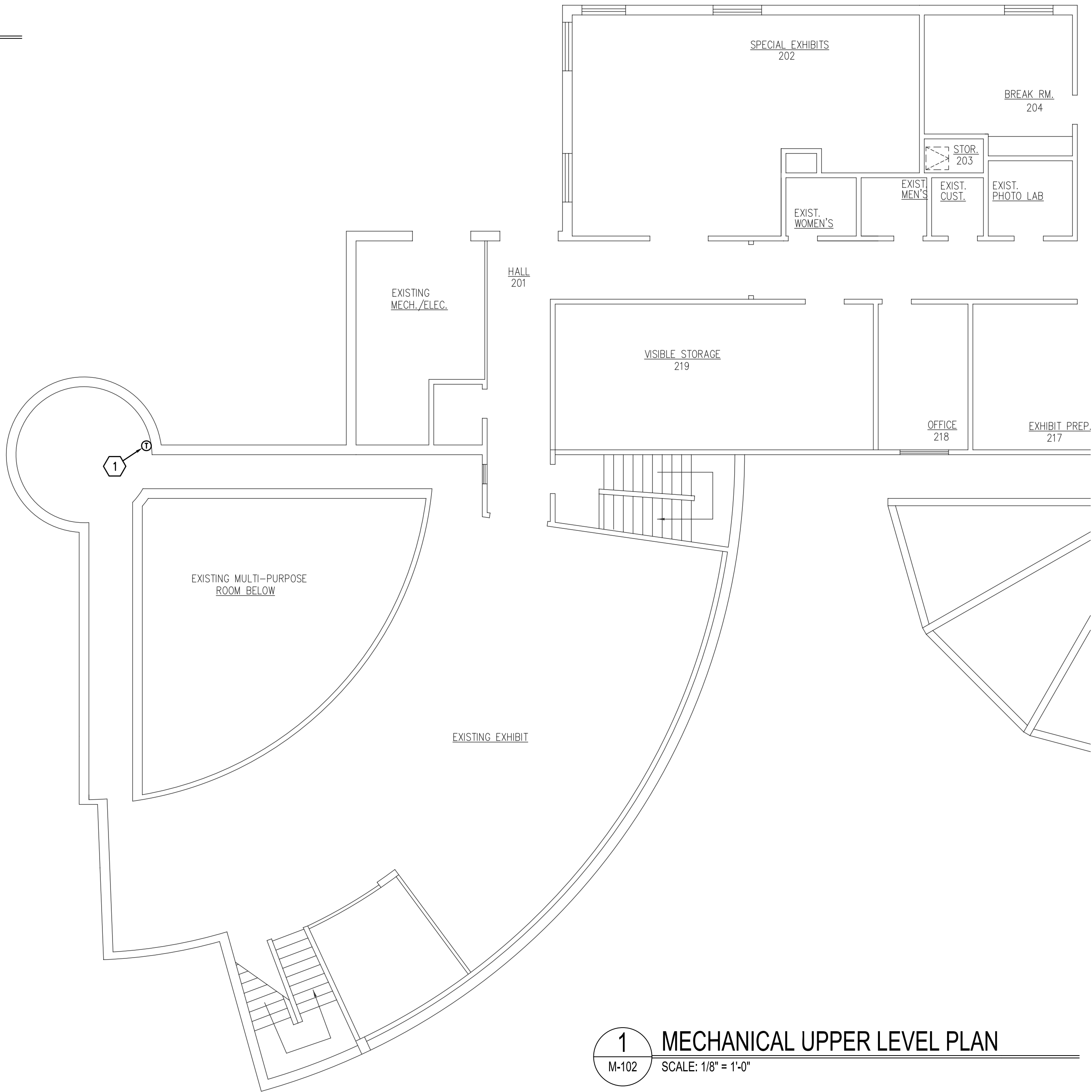
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M-102